Iowa General Assembly

2004 Committee Briefings

Legislative Services Agency – Legal Services Division
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IOWA LEARNING TECHNOLOGY COMMITTEE

Meeting Dates: November 22, 2004 | November 5, 2004 | September 30, 2004

Purpose. *This compilation of briefings on legislative interim committee meetings and other meetings and topics of interest to the Iowa General Assembly, written by the Legal Services Division staff of the nonpartisan Legislative Services Agency, describes committee activities or topics. The briefings were originally distributed in the Iowa Legislative Interim Calendar and Briefing. Official minutes, reports, and other detailed information concerning the committee or topic addressed by a briefing can be obtained from the committee's Internet page listed above, from the Iowa General Assembly's Internet page at http://www.legis.state.ia.us, or from the agency connected with the meeting or topic described.*

IOWA LEARNING TECHNOLOGY COMMITTEE

November 22, 2004

Cochairperson: Senator Jeff Angelo
Cochairperson: Representative Carmine Boal

Overview. The Legislative Council established the Iowa Learning Technology Committee and authorized three meeting days for the Committee. The Committee's charge is to develop a learning technology plan, including proposed policies and budgets for plan components; address professional development, implementation strategies and other phase-in issues, strategies for coordinating with existing technology initiatives and resources, and procedures for data tracking and assessment; and incorporate guiding principles outlined in 2004 Iowa Acts, SF 2298, §244. This was the Committee's third and final meeting.

College Community School District. Mr. Alan Rowe, Executive Director of Learning Services for the college community school district located in Cedar Rapids, reviewed his PowerPoint presentation, which illustrated the way in which teachers and administrators in the district use an Internet learning portal (at www.prairiepride.org). The portal's learn-ing tools support professional practices and result in increased and more efficient use of student data, including attendance, discipline, and achievement measures; more effective professional learning practices; and an increased sharing of teaching tools and strategies. The district establishes and reviews measurables to determine if professional development efforts are achieving the intended "USE" results, which he defined as "Use of best practices, Sharing level among colleagues, and Effect on student achievement and teacher quality." Technology introduced to the district must be "SIF"-compliant, meaning it must be compatible with the school's interoperability framework.

The popular perception is that the district primarily serves an affluent suburban community; however, the district's special education "move-in" growth rate is three times the average, 25 percent of its students are eligible for free or reduced price meals, and approximately 100 students are from homeless families. The district truly is a "community school," acting as the Internet service provider to the community for 10 years. The community expects access to the district. The district has successfully passed 22 of its last 24 bond issues. The district received little or no help from its area education agency in its technology efforts. The district has moved beyond the technology plan required by the state to developing an information service plan, which focuses on attendance, behavior, and academics. The district has created standards of performance, uses common definitions so that data can be interpreted in the same manner, and employs clearly defined achievement growth indicators.

Technology accelerates the information teachers can use to meet student needs. Isolation is a barrier to school improvement, and while teachers often know what tools are available to help achieve improvement, they don't have the time or opportunity to avail themselves of the tools. The need to increase time for professional development efforts has led to a plan to delay the school daily start time to 8:40 a.m., to allow teachers more time to collaborate.

Also of great importance to achievement is the district's leadership team, which Mr. Rowe advised should be composed of, at a minimum, the superintendent, business manager, curriculum director, web master, community relations specialist,

volunteer coordinator, and the technology specialist. The district maintains a library of best practices. The district has hosted more than 50 other school districts which have come to study its achievements. He recommended the formation of a "data academy" to support school districts and recommended that the Physical Plant and Equipment Levy (Iowa Code §298.2) be revised to allow districts to buy technology hardware with preloaded software.

Iowa Department of Education. Mr. Jeff Berger, legislative and policy liaison for the Department of Education, was invited to respond to questions from Committee members. He noted that the state does not utilize a consistent nomenclature, so the State Board of Education's Technology Advisory Committee decided to gather additional information to improve the state's knowledge base regarding educational technology and its use in Iowa's K-12 system. Because the advisory committee is still formulating its survey, he suggested that the Committee could at this time request changes to the advisory committee's survey. The department heavily uses Learning Point Associates, located in Chicago, as a clearinghouse for educational technology information.

Committee Discussion. Cochairperson Angelo distributed recommendations suggested by Mr. Jon Hueser, a presenter from the second Committee meeting. Senator Daryl Beall distributed a draft recommendation for a state appropriation of $250,000 for an Iowa Learning Technology Pilot Program which would provide competitive grants to school districts that meet specified standards. Cochairperson Boal distributed proposed recommendations to establish a student achievement learning technology initiative using one-to-one student learning technology through public-private partnerships; identify and coordinate revenue sources for K-12 technology; establish a clearinghouse for purposes of sharing the projects and results of K-12 education technology initiatives occurring in the state; and create a common understanding of the current status of technology in Iowa's classrooms supported by reliable data. Representative Rod Roberts proposed the creation of a research park, to be located perhaps at the University of Northern Iowa, which could develop intellectual property of value to school districts across the nation. Representative Cindy Winckler identified a need to develop a matrix showing where districts are in efforts to integrate technology in the classroom and that would identify phases for reaching the optimum level.

Recommendations. The recommendations unanimously approved by the Committee are summarized as follows:

- Establish an Iowa Learning Technology Commission to administer a student achievement learning technology initiative that may include the use of one-to-one technology through public-private partnerships and local matching funds. The commission is directed to collaborate with the Department of Education in identifying and coordinating funding sources used for K-12 and community college technology, and in creating a common understanding of the current status of technology in Iowa's classroom supported by reliable data.
- Establish state-funded competitive grants to Iowa school districts on a matching basis. The key components for grant qualification are specified, as are the methods of measuring progress.
- Establish a research triangle and clearinghouse within the Regents universities.
- Expand the Physical Plant and Equipment Levy to include computer hardware, servers, and preloaded software.

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IOWA LEARNING TECHNOLOGY COMMITTEE
November 5, 2004

Cochairperson: Senator Jeff Angelo
Cochairperson: Representative Carmine Boal

Overview. The Legislative Council established the Iowa Learning Technology Study Committee and authorized three meeting days for the committee. The committee's charge is to develop a learning technology plan, including proposed policies and budgets for plan components; address professional development, implementation strategies and other phase-in issues, strategies for coordinating with existing technology initiatives and resources, and procedures for data tracking and assessment; and incorporate guiding principles outlined in 2004 Iowa Acts, SF 2298, §244.

East Greene Community School District. Mr. Jon Hueser, Computer and Technology Advisor for the East Greene Community School District, described his rural school district and its success in integrating technology into the instructional programs and practices of the elementary, middle, and secondary levels. The district is located in a high poverty area and its enrollment is declining. The district has provided leased tablet PCs and projectors to its teachers, makes use of mobile labs, and has installed multiple computer labs in each building. Parents can receive progress reports via e-mail or go online to the district's web site to check their student's grades. The best parental communication tool, he stated, is a web-based student information system. The district sets aside 25 percent of its staff development days for technology training. The Cisco Networking Academy is offered by the district, attracting the participation of students from four other districts. Teachers are being trained to use an anti-plagiarism web site. Students in grades 3 and 4 meet daily

for nine weeks of training using a typing software program. In grades 2 through 6 a self-paced program allows the staff to determine the technology skills of students and track their progress at each grade level. The district has lesson plans to help teachers integrate technology into their curricula. Mr. Hueser expressed admiration for online databases purchased and made available by area education agencies (AEA) and the training AEAs provide. He also praised the Department of Education for its support and the ease with which district data can now be submitted to the department. He stated that schools must find ways to use the Iowa Communications Network (ICN) more, share staff via the ICN, and work more closely with community colleges to provide additional advanced courses to students. To encourage technology integration, the state should provide small grants and publish the results of the efforts funded through the grants.

Learning Point Associates. Dr. Gil Valdez, Deputy Director of Learning Point Associates, which includes the North Central Regional Educational Laboratory, Director of the North Central Regional Technology in Education Consortium, and Co-Director of the North Central Eisenhower Mathematics and Science Consortium, updated the committee regarding research on the use of educational technology, especially the contexts in which technology works best, whether technology use increases student achievement levels, and the recent national trends in the use of educational technology. Dr. Valdez covered the following major points:

- **Teacher Professional Development.** Dr. Valdez stated that teacher professional development is absolutely necessary and that schools should allocate 30 percent of their technology budget for that purpose. Professional development should be seen as an ongoing process. Successful education technology use requires administrators who understand and support its use, sufficient access to hardware and applications that are updated as needed and are appropriate to the learning process, a high level of technical support, and ongoing evaluation. Good practitioner preparation programs that successfully integrate technology in their curriculum have strong mentor teachers who provide honest feedback to students. Schools need to employ two or three good technical experts to assist teachers in improving their curricula. Dr. Valdez praised Iowa's AEA system as possibly the best intermediate support system in the country.
- **Research.** Research has shown that educational technology use has a small positive effect. Laptops also improve student attendance and attitudes; encourage and help sustain inquiry-oriented, project-based, and long-term classroom activities; and some studies have shown slightly higher achievement in certain subjects when laptops are used, though other laptop studies did not show similar gains. Technology can produce positive changes in instructional practices and is very important for special population students, particularly for those in need of assistive technology. Computers have a significant impact on learning and practicing 21st Century skills. One of the best uses of computers in schools is in teaching difficult concepts, which computers can animate for better comprehension by today's visual learners. Schools should begin instruction in higher mathematics and science in grades 2 and 3.
- **Trends.** Online learning is becoming a more important instructional delivery option, especially in rural schools. Increasingly, the most recent and powerful applications and content are only available on the Internet. Computer animation is growing in importance because it provides visual and representation support to abstract concepts.

Iowa Department of Education. Ms. Judy Jeffrey, Interim Director of the Iowa Department of Education, provided background on Iowa's school improvement efforts; identified recent technology enhancements to requirements for comprehensive school improvement plans; explained the department's two-phase process to study the current state of technology in Iowa and the work of the State Board Technology Advisory Committee; and listed the categories of data collected from schools. She noted that in eight years, the ratio of pupils per computer in Iowa's public schools has gone from 7.2 to 3.7. Over 90 percent of school buildings in Iowa have high speed Internet access, and nearly half of the public school buildings in Iowa have access to a wireless network. Megabit usage per second has more than doubled since 2001. She also provided funding and expenditure information by school district and by the state and federal governments. The state provided funding specifically for education technology from FY 1997 to FY 2002, expending $163 million in total over the six-year period. The state also receives federal funding under the Star School Program, the Technology Literacy Challenge Fund, the Enhancing Education Through Technology Program, and Evaluating State Educational Technology Programs grants. A change in the use of federal funds would significantly jeopardize some of those federal dollars. Districts using federal moneys for long-range plans could see their funding withdrawn. The state technology plan approved by the U.S. Department of Education will be valid until 2007. The state would need to submit a new application to the federal department and receive federal approval for any changes to the state plan. Under a Bill and Melinda Gates Foundation Data Driven Leadership grant, participating administrators received a $900 credit to buy technology. She promised to place the guiding principles the State Board Technology Advisory Committee developed during FY 2004 on the department's web site, and to provide to members a list of the school buildings that do not have access to the Internet.

Loess Hills AEA 13. Ms. Marilyn Weber, Administrator of the Loess Hills AEA 13 Learning Resource Center, described the agency's services and consumers, provided a history of technology use in schools, described how teachers and districts currently use technology, identified the challenges of providing and maintaining adequate instructional technology in the schools, and listed the technology support AEAs make available to school districts. She also noted the amount of financial support AEA 13 has provided for local district Internet over the past 10 years. She noted that Iowa is required to have a strategic plan for technology by the U.S. Department of Education.

Des Moines Area Community College. Ms. Ann Watts, Instructional Design Coordinator at Des Moines Area Community College (DMACC), addressed the committee about technology at the community college level, discussed the changing focus of teaching and the importance of visual learning, and described the college's use of the SharePoint Internet portal. The portal facilitates communication within the college and is used as an outreach tool with communities, including high schools. Instructors use the portal to customize class web sites, which enables students to access information and contributes to a successful learning environment.

Next Meeting. The committee approved Monday, November 22, 2004, as its third and last meeting date. The committee requested that staff provide members with a copy of the committee's charge, the State Board Technology Advisory Committee's recommendations (as soon as they are made available by the Department of Education), and a copy of the legislation passed by the 2004 Iowa Acts, SF 2298, §244. Senator Robert Dvorsky asked the members to consider adding to the November 22 meeting agenda a presentation by a representative of the College Community School District in Cedar Rapids. Cochairperson Boal encouraged members to consider over the next two weeks the direction the committee should take with its recommendations. It was agreed that the substance of the third meeting will focus on consideration of recommendations.

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IOWA LEARNING TECHNOLOGY COMMITTEE
September 30, 2004

Cochairperson: Senator Jeff Angelo
Cochairperson: Representative Carmine Boal

Overview. The first of three scheduled meetings of the Iowa Learning Technology Committee focused on school district experiences related to the planning and implementation of laptop programs at the middle and high school levels. The committee also heard presentations from computer industry representatives describing how school districts are using information technology to increase student achievement levels, access to school information, school attendance rates, and interest and engagement in school; increase parental oversight and participation; and meet federal No Child Left Behind Act (NCLB) of 2001 reporting requirements. The committee heard a presentation describing efforts to implement Michigan's "Freedom to Learn" "one-to-one computing" laptop initiative.

Iowa School District Presentations. Mount Ayr Community School District Superintendent William Decker noted that his county-wide school district is very rural, making access to the Internet and high-speed Internet connections a challenge for families living in his district. This school year Mount Ayr initiated a laptop program, the purpose of which is to reduce the socio-economic gap and raise achievement levels. Under the program, students and staff in grades seven and eight are provided with laptops for use on and off school grounds. The district began preparing staff for the laptops in the summer and provided laptops to the staff in September. The program is already energizing the district's students and staff, though students won't receive their laptops for a few weeks. The district funded the program with local moneys that would otherwise have been used to update two computer labs and with a small Star Schools grant. Students are responsible for an annual $25 insurance payment. The district will measure the success of the program using the assessment tools the district was already using, such as the Iowa Test of Basic Skills.

Carroll Community School District Superintendent Rob Cordes observed that student achievement is lower at the seventh grade level than at any other grade level. The Carroll district's laptop program is intended to excite seventh grade students about education. Students have possession of the laptop day and night during the school year. Since the laptop program began in the 2003-2004 school year, students, especially those requiring special education, have become engaged, and teachers have become facilitators. The past year has seen increases in the quality and quantity of writing skills and improved critical thinking skills, though because the district also began using graphic organizers (an instructional tool used to illustrate a student's or class's prior knowledge about a topic or section of text) and using different instructional strategies, he cannot attribute the increases in student achievement solely to the laptop program. Students who are not eligible for free or reduced price meals pay an annual $15 insurance fee. Superintendent Cordes anticipates that the district will eventually move toward online textbooks. Eighth graders who used the laptops last year, and who must this year use a computer lab, were disappointed that the program is not in use at the eighth grade level.

Michigan Virtual University Teleconference. Dr. Bruce Montgomery, Vice President of the Michigan Virtual University (MVU), made a presentation to the committee via teleconference. MVU is a private, not-for-profit Michigan corporation established in 1998 to deliver online education and training opportunities to the Michigan workforce. Together with the University of Michigan and the Michigan Department of Education, MVU operates Freedom to Learn, an education program to improve student achievement in core academic subjects by providing Michigan's students with access to one-to-one wireless technology. The program's two purposes are to increase student achievement and to expand technology

opportunities to students, especially students in rural and high-priority schools. Michigan experienced a major budget deficit coinciding with the program's initial implementation, requiring that the program prioritize implementation rather than implement statewide. In 2002-2003 it provided demonstration grants to 15 school districts (177 buildings) of differing sizes, for use at grade levels determined by each district, from K-12. The program is moving toward establishment of the program at the middle school levels, starting with grade six. The program currently serves high-need, high-priority schools, but the state is interested in expanding the program to more districts. The program uses Hewlett-Packard computers and Microsoft software. Funding is a challenge. The state is funding the program using federal moneys ($26 million) available under Title II of NCLB and an appropriation of $3.7 million in state funds is likely. Dr. Montgomery advised members to study the problems inherent in picking a single solution provider when a number of schools will already have technology in place. He also suggested that each building assign someone to mentor teachers regarding professional development and opportunities for using technology in the classroom.

Apple. Ms. Jodie Butler, Manager of Strategic Relations, Education Division, Apple Computer, Inc., briefly described legislative efforts to pass technology initiatives in other states, and various statewide, county, and school district technology initiatives that are taking place in other states. She then introduced Mr. Chris Toy, Principal of the Freeport Middle School in Freeport, Maine. Mr. Toy described the Maine Learning Technology Initiative (MLTI), which was originally proposed by Governor Angus King. Governor King created a task force that worked for a year to study the idea, develop a framework, and issue a request for proposals. Apple contributed to and supported the effort. In 2002-2003, laptops were provided to seventh grade public school students and teachers throughout Maine. The initiative was expanded to include eighth grade students and teachers in the 2003-2004 school year. The state is working to expand the program into its high schools, though currently only those high schools that can afford it are participating. Mr. Toy remarked that, within his 26 years of experience as an educational professional, the laptop initiative has made the greatest impact of any reform initiative in the classroom. He identified the initiative's clear, top-down vision as its most important feature. A research center at the University of Maine is under contract to evaluate the program. He noted that every major textbook now has a web component. Laptops level the playing field, making access to educational opportunities equally accessible to students. Teachers are creating their own textbooks or collections of web pages. Students are protective of the equipment. Disciplinary problems seem to be decreasing. The initiative has leveraged other resources, such as free and open access to the Educational Planning Services Corporation's database. Staff development dollars were received from vendors who wanted to make Maine's program a success.

Microsoft. Microsoft's representative, Mr. Brice Oakley, and members of Microsoft's Education Solutions Group, Paul Baird, Nancy Forestel, Shelley Furse, Raamel Mitchell, and Tyler Petersen, used a Powerpoint presentation to outline the following topics: Microsoft's agenda, technology paradigms, and charter; connected learning communities, the current K-12 climate, Microsoft's K-12 focus, the components of a connected learning environment; portals, customized for each school and student; student tracking and accountability possibilities; Partners in Learning programs; Microsoft's Innovative Teachers web site; and peer coaching, principal leadership, the next evolution, and Microsoft's commitment to being a learning partner to educators and education in Iowa. Ms. Furse noted that Microsoft has donated $22 million in cash and software to Iowa education.

Gateway. Gateway representatives Ralph Oxley, Todd Jolly, and Joel Breyfogle demonstrated a Tablet PC and listed the local school districts and Iowa postsecondary institutions that use Gateway's products. Mr. Breyfogle introduced Mr. Brad Brandsrud, Assistant Principal at the Watertown, South Dakota High School. Watertown is in the second year of its laptop program. The community's response to the program is generally positive. The school held three public forums and surveyed parents prior to initiating the program. The school purchased filtering technology. The school has contracted for program evaluation services from Technology and Innovation in Education, a regional, nonprofit, intermediate education agency located in Rapid City, South Dakota. Other schools in the region that send their students to Watertown for advanced courses must agree to provide their students with laptops. Use of online staff development allowed teachers to learn at their own pace. Teachers in the school have become guides to self-discovery. Parents can review their student's records, which has reduced the number of phone calls to the school, but increased the number of e-mails. Mr. George Tuttle, Mayor of Pocahontas and a technology consultant for the Pocahontas Area School District, was introduced and asked to describe his school district's technology program. The school district has a long history of working with and improving technology for students - even constructing a special vocational-technical building. The district wired all of its buildings in the mid-1990s, provided Internet access to all staff, switched to PCs, and moved to a Microsoft Windows platform to avoid the need to support two platforms. The district has faced declining enrollment and reductions in staff. The district recently replaced every other piece of audio-visual equipment with Tablet PCs and projectors that work with the PCs. Local funds paid for the $200,000 program.

Discussion. Committee members suggested that the next meeting be used to review with the Department of Education and area education agencies the current state of education technology and professional development, and available funding sources for education technology and related needs; and to hear from a computer technology coordinator from the East Greene Community School District. It was also agreed that the third meeting date will be reserved for the consideration of recommendations.

Next Meeting. The committee tentatively agreed on November 15 and 16, 2004, as the final two meeting dates. However, the dates may be changed to meet the travel requirements of Dr. Gil Valdez, representing Learning Point Associates headquarted in Naperville, Illinios, who has agreed to travel to Des Moines to update the committee on recent national trends in the use of educational technology research implications and the contexts in which technology works best.

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